

INTELLIGENT FIRE ALARM AND AUDIO NETWORK SYSTEM


FleXNet™


Description

Mircom's FleX-Net™ Series Network Fire Alarm Control Panels offer modular components to meet a wide variety of applications. Designed for peer-to-peer network communications, the FleX-Net™ Series allows for a maximum of 63 nodes, while providing reliability, flexibility and expandability.

The FleX-Net™ Series is based on the proven and reliable FX-2000 Series platform. Each base panel consists of one intelligent signaling line circuit (SLC) capable of supporting 99 analog sensors and 99 addressable modules. In addition the base panel also consists of 4 Class A/B (Style Z/Y) Indicating Circuits rated at 1.7 Amps each and a large 4 x 20 back-lit alphanumeric LCD display.

The audio control provides a multi-channel distributed audio system that allows for efficient emergency paging, evacuation signaling and firefighters telephone communication. Each audio card cage supports a maximum of 4 QAA style amplifiers for a maximum of 180 watts per cabinet.

The FleX-Net™ Series network configuration allows the control panel to be connected to a Mircom network to provide additional input circuits, visual zones, programmable notification appliance circuits, and relays. Each panel can be configured using standard FX-2000 components. The network interface module allows the panels to communicate on a peer-to-peer network.

The network capabilities allow site specific customization and the ability to meet local and national requirements.

Features

Fire Alarm Control

- One expandable to five Intelligent Signaling Line Circuit (SLC)
- Modular design
- Each SLC is capable of supporting 99 Analog Sensors and 99 Addressable Modules which can be wired in Class A (Style 6 or 7) or Class B (Style 4)
- Four Class A/B (Style Z/Y) Indicating Circuits rated at 1.7 Amps each
- Large 4 by 20 character Back-lit LCD Display with user friendly menu
- Correlatable Switch Inputs which allows for multi-functional outputs
- Four Alarm Queues with selector switches and LEDs for Alarm, Supervisory, Monitor and Trouble
- Auxiliary relay contacts for Common Alarm, Common Supervisory and Common Trouble
- RS-232 output for remote system printer or CRT
- Two Event History Logs comprised of a 1000 Alarm History Log for alarm related events and a 2000 Event Log for all events
- Front Panel Auto-Configure and/or Computer laptop Programmable
- 16 zone configurable LED annunciator complete with individual slide-in labels for zone definition
- Configurable for Coded Operation
- Panel selection for Canadian (ULC) or U.S.A. (UL) requirements for smoke sensors (sensitivity) via computer laptop
- Capability to adjust Intelligent Smoke Detector sensitivity levels

Audio Control

- Multi-channel operation
- Distributed audio
- 5 firefighter telephone channels
- 25 or 70 volt system
- Multiple amplifier sizes
- Max. of 180 watts per Integrated Fire & Audio panel

Network Features

- Up to 63 nodes
- Peer-to-peer network communications
- Multiple Lobby Control Centers
- Class B (Style 4) or Class A (Style 6 or 7) wiring configuration
- Proprietary Arcnet Network Communications protocol
- Supports copper and/or fiber optic network cable



S7010

S7010

CATALOG NUMBER
5940

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Flex-Net™ Integrated Fire and Audio Control Panels



FX-2009-12N Network Lobby Control Chassis

The FX-2009-12N Network Lobby Control Chassis consists of a base fire alarm panel with one isolated intelligent Signaling Line Circuit (SLC) Style 4, 6 or 7, Four Class A/B NAC circuits, a 4 line by 20 character LCD display, a 16 Zone LED Annunciator and a 12 Amp power supply. The FX-2009-12N has space to mount the FNC-2000 Fire Network Controller Module, ANC-5000 Audio Network Controller Module, TNC-5000 Telephone Network Controller Module and provision to mount up to 4 adder modules. The FX-2009-12N mounts in a BB-5000 Series enclosure and supports Audio Lobby Control modules, Fire Fighter's Lobby Control modules and FX-2000 Internal Annunciator / Programmable modules.



ECX-0012 Expander Chassis

The ECX-0012 Expander Chassis for the FX-2009-12N supports up to 12 adder modules and has space for 2 internal annunciator modules. The ECX-0012 mounts in the BB-5000 series enclosures.



BB-5008/BB-5014 Lobby Enclosures

The BB-5008 and BB-5014 lobby enclosures support the FX-2009-12N Network Lobby Control chassis and provide space for internal lobby control modules. The cabinets hold up to 24 AH batteries. The door and chassis hardware are ordered separately.

BB-5008 Dimensions: 36"H x 30"W x 7"D

BB-5014 Dimensions: 60"H x 30"W x 7"D



FX-2000ND Integrated Fire Network Control Chassis

The FX-2000ND consists of a base fire alarm panel that includes one intelligent Signaling Line Circuit, 4 Class A/B NAC circuits and a 4 line by 20 character LCD display and a 16 zone LED annunciator. The FX-2000ND mounts in a BBX-2000(R) enclosure.



QX-5000N Integrated Audio Network Control Chassis

The QX-5000N includes the audio and telephone control which consists of an audio card cage designed for mounting the ANC-5000 Audio Network Controller Module, TNC-5000 Telephone Network Controller Module and up to four QAA style audio amplifiers. The QX-5000N connects to the FX-2000ND Network fire alarm chassis and mounts in the BBX-2000(R) enclosure. The QX-5000N supports audio expansion with connection to up to three QBB-5001 Audio Cabinets. Each QBB-5001 can support a maximum 360 watts.



BBX-2000 Integrated Fire & Audio Enclosure

The BBX-2000 enclosure houses the FX-2000ND fire network control chassis, QMB-5000N audio network control panel and PS-2040 power supply. The enclosure will support up to 40 AH batteries.

Dimensions: 60"H x 20"W x 7.75"D

Fire Network Controller Modules



FNC-2000 Fire Network Controller Module

The FNC-2000 provides network capability to the FX-2009-12N. One Fire Network Controller Module is required per network node panel. In addition the FNC-2000 provides an interface for adding an optional FOM-2000-SP Fiber Optic Network Adder Module. The FNC-2000 mounts in the FX-2009-12N main chassis.



FOM-2000-SP Fiber Optic Network Adder Module

The FOM-2000-SP Fiber Optic Network Adder Module allows for the use of fiber optic cabling on the FX-2009-12N. It seamlessly connects to the interface on the FNC-2000 Fire Alarm Network Controller Module.

Adder Loop Controller Modules



ALCN-396S Dual Analog Loop Controller Module

The ALCN-396S Dual Analog Loop Controller Module provides two additional Signaling Line Circuits (SLC) to the FX-2003-12N consisting of 99 Analog Sensors and 99 Addressable Modules per loop. The ALCN-396S occupies one module slot in the FX-2009-12N main chassis.

Adder Auxiliary Modules



UDACT-300A Digital Alarm Communicator Module

The UDACT-300A Digital Alarm Communicator Module allows the FX-2003-12N to transmit addressable point information to a central station. The UDACT-300A occupies one module slot in the FX-2009-12N main chassis.

Adder Hardwire Modules



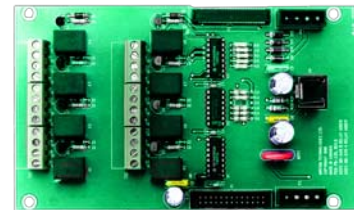
DM-1008A Eight Initiating Circuit Module

The DM-1008A provides 8 Class B (Style B) or 4 Class A (Style D) Initiating Circuits configurable for Alarm, Supervisory or Trouble zones. The DM-1008A occupies one module slot in the FX-2009-12N main chassis.



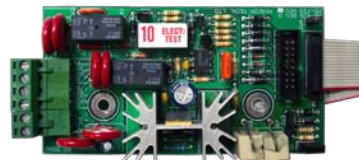
SGM-1004A Four Indicating Circuit Module

The SGM-1004A provides 4 Class A/B (Style Z/Y) Notification Appliance Circuits configurable as Silenceable or Non-Silenceable. Each NAC circuit is rated at 1.7 Amps. Each of the NAC circuits have individual signal silence inputs which are jumper selectable. The SGM-1004A occupies one module slot in the FX-2009-12N main chassis.



RM-1008A Eight Relay Circuit Module

The RM-1008A provides the FX-2003-12N with eight individual configurable relays per module. Each relay provides one Form C contact rated at 28 VDC @1 Amp (resistive load) as well as a Green LED to indicate that the relay is active. The RM-1008A occupies one module slot in the FX-2003-12N main chassis.



PR-300 Polarity Reversal/City Tie Module

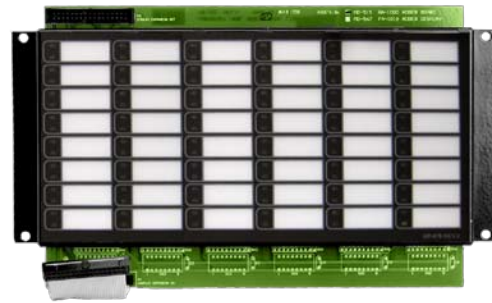
The PR-300 Polarity Reversal/City Tie Module provides the system with a supervised City Tie (24 VDC/200 mA max.) and Polarity Reversal connection (24 VDC (open circuit), 8 mA max. (shorted)). The PR-300 occupies one module slot in the FX-2009-12N main chassis.

Remote Annunciators



RAXN-LCD Remote LCD Annunciator

The RAXN-LCD Remote LCD Annunciator provides the same functions as the main display on the fire alarm control panel. The RAXN-LCD occupies one display position in the BB-1000 Series enclosures.



RAX-1048TZ Programmable LED Annunciator Module

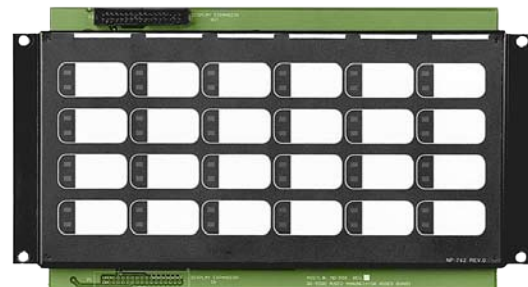
The RAX-1048TZ Programmable LED Annunciator Module provides 48 programmable bi-colored LEDs. The RAX-1048TZ connects to the main panel or the RAXN-LCD when mounted remotely. The RAX-1048TZ occupies one display position in the BB-1000 or BB-5000 Series enclosures.

Programmable Modules



FDX-008 Fan Damper Control Module

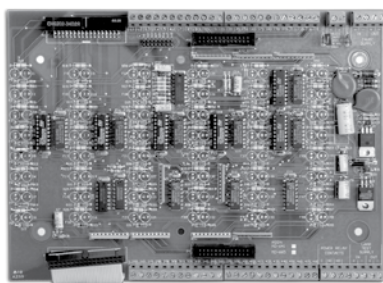
The FDX-008 Fan Damper Control Module provides individually programmed circuits which can be used for fan or damper control. The FDX-008 connects to the main panel or the RAXN-LCD and occupies one display position in the BB-1000 or BB-5000 Series enclosures.



IPS-2424 Programmable Input Switches Module

The IPS-2424 provides 24 programmable switches that can be configured for ancillary functions such as zone bypass or added common control functions. The IPS-2424 connects to main panel or the RAXN-LCD when mounted remotely. The IPS-2424 occupies one display position in the BB-1000 or BB-5000 Series enclosures.

Graphic Annunciator Driver Modules



AGD-048 Adder Graphic Driver Module

The AGD-048 Adder Graphic Driver Module can be used with the MGD-32 to support an additional 48 supervised outputs. The AGD-048 mounts in a graphic annunciator wallbox or in the BB-5000 enclosures.

Annunciator/Programmable Module Enclosures

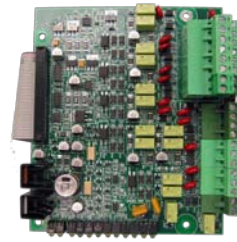
BB-1001: 9"H x 12.75"W x 1.2"D
BB-1002: 18"H x 12.75"W x 1.2"D
BB-1003: 26.4"H x 12.75"W x 1.2"D
BB-1008: 33"H x 22.5"W x 1.25"D
BB-1012: 45"H x 22.5"W x 1.25"D

FleX-Net™ Audio and Telephone Network Controller Modules



ANC-5000 Audio Network Controller Module

The ANC-5000 provides audio microphone control on the network system. The ANC-5000 mounts on a plate in the FX-2009-12N or QMB-5000N.



TNC-5000 Telephone Network Controller Module

The TNC-5000 provides five hardwired telephone circuits for the local floor panel with the first circuit configurable for the master telephone handset. The TNC-5000 mounts in the FX-2009-12N or QMB-5000N.

Paging Control Modules



QMP-5101N Network Master Paging Control Module

The QMP-5101N Network Master Paging Control Module includes the paging microphone and common control indicators. The QMP-5101N allows for all call paging or selective paging with the QAZT-5302 Zoned Paging and Telephone Selector Modules. The QMP-5101N occupies one module space in the BB-5000 Series enclosures.



QAZT-5302 Zoned Paging and Telephone Selector Module

The QAZT-5302 Zoned Paging and Telephone Selector Module includes 24 zone selector switches and LEDs. The QAZT-5302 is used with the QMP-5101N Network Master Paging Control module or QMT-5302 Network Master Firefighters' Telephone module. Slide-in labels are provided to label the selector zones. The QAZT-5302 occupies one module space in the BB-1000 or BB-5000 Series enclosures.

Firefighter Telephone Control Modules



QMT-5302N Network Master Firefighters' Telephone Control Module

The QMT-5302N includes the Master Telephone Handset and common control indicators. The QMT-5302N supports the QAZT-5302 Paging and Telephone selector modules. The QMT-5302N occupies one module space in the BB-5000 Series enclosures.

Audio Amplifiers



QAA-5415-70 and QAA-5415-25 Quad 15 Watt Amplifiers

The QAA-5415-70 and QAA-5415-25 consist of four 15 watt supervised paging/speaker circuits which can be wired in Class 'B' (Style 'Y') only. The QAA-5415-70 is a 70 Volt amplifier and the QAA-5415-25 is a 25 Volt amplifier. Both models mount in the FXQ-NN card cage and occupy one amplifier slot.

QAA-5230S-70/25 Dual 30 Watt Amplifier

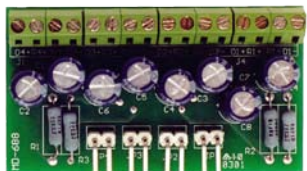
The QAA-5230S-70/25 consists of two 25 or 70 Volt 30 watt amplifiers. Each amplifier has two 15 watt supervised speaker outputs which are used for 'A' 'B' speakers per floor and are wired in Class 'B' (Style 'Y') only. The QAA-5230S-70/25 mounts in the FXQ-NN card cage and occupies one amplifier slot.

QAA-5230-70/25 Dual 30 Watt Amplifier

The QAA-5230-70/25 consists of two 25 or 70 Volt 30 watt supervised paging/speaker circuits which can be wired in Class 'A' (Style 'Z') or Class 'B' (Style 'Y'). The QAA-5230-70/25 mounts in the FXQ-NN card cage and occupies one amplifier slot.

QAA-5160-70/25 60 Watt Amplifier

The QAA-5160-70/25 consists of one 25 or 70 Volt 60 watt supervised paging/speaker circuit which can be wired in Class 'A' (Style 'Z') or Class 'B' (Style 'Y'). The QAA-5160-70/25 mounts in the FXQ-NN card cage and occupies one amplifier slot.



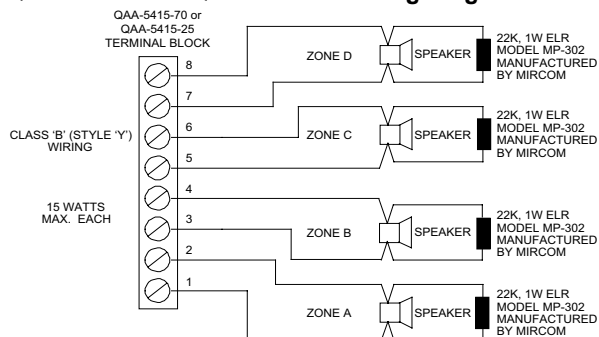
QAA-4CLA Class 'A' (Style 'Z') Converter Module

The QAA-4CLA converts each of the four Class 'B' (Style 'Y') outputs on a QAA-5415-70 or QAA-5415-25 Amplifiers to Class 'A' (Style 'Z'). The module attaches to the bottom of the amplifier. One QAA-4CLA is required for each amplifier.

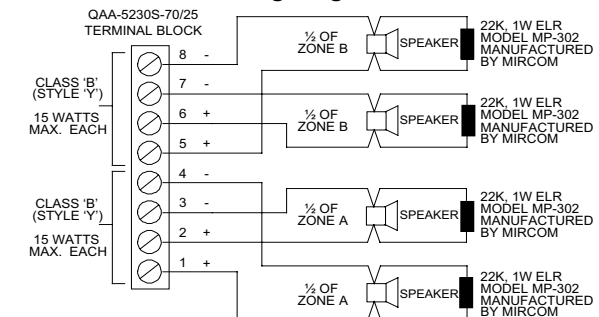
QAA-4CLAS Class 'A' (Style 'Z') Converter Module

The QAA-4CLAS converts each of the four Class 'B' (Style 'Y') outputs on a QAA-5230S-70/25 or QAA-5230S-525-70/25 Amplifier to Class 'A' (Style 'Z'). The module attaches to the bottom of the amplifier. One QAA-4CLA is required for each amplifier.

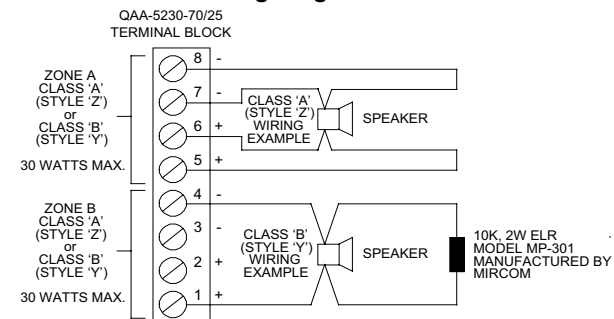
QAA 5415-70 or QAA-5415-25 Wiring Diagram



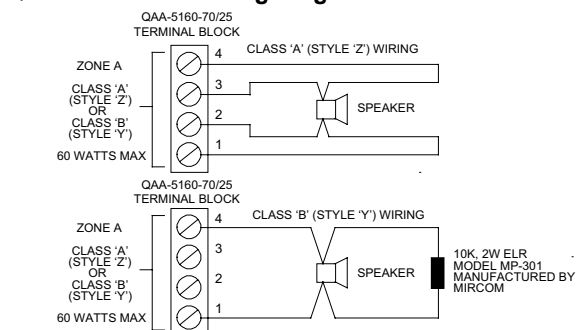
QAA-5230S-70/25 Wiring Diagram



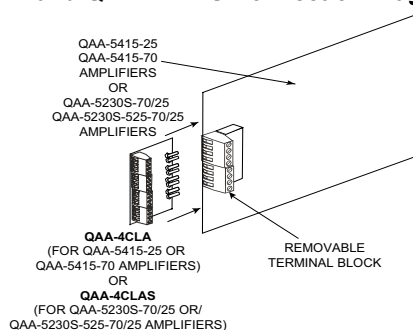
QAA-5230-70/25 Wiring Diagram



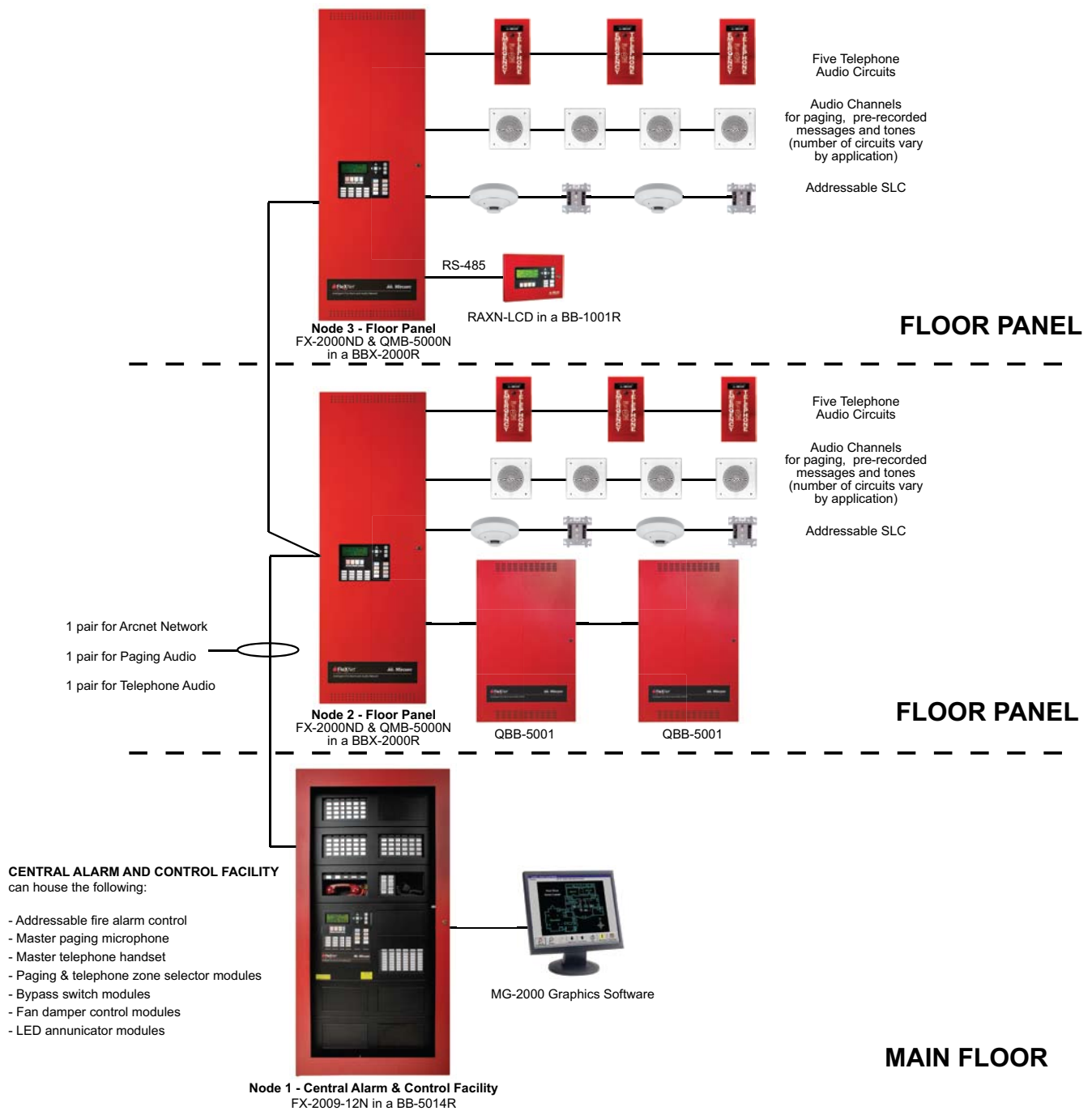
QAA-5160-70/25 Wiring Diagram



QAA-4CLA and QAA-4CLAS Connection Diagram



Typical FleX-Net™ Networked System Configuration with Audio



Ordering Information

Model	Description
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FleX-Net™ Network Lobby Control and Floor Panels - Integrated Fire and Audio Systems

FX-2009-12N	Large Network Main Chassis. Mounts in the BB-5000 series enclosures.
ECX-0012	Expander Chassis for the FX-2009-12N. Mounts in the BB-5000 series enclosures.
FX-2000ND	Integrated Fire Alarm Network Control Chassis
QMB-5000N	Integrated Audio Network Control Chassis
PS-2040	Network Fire Alarm and Audio Power Supply

Enclosures

BB-5008	Lobby Control Wallbox Enclosure. Supports 8 Module Footprints.
DOX-5008M	White Metal Door for BB-5008. Add suffix 'R' for red enclosure.
CCH-5008	Custom Mounting Kit for BB-5008. One required per BB-5008.
BB-5014	Lobby Control Wallbox Enclosure. Supports 14 Module Footprints.
DOX-5014M	White Metal Door for BB-5014. Add suffix 'R' for red enclosure.
CCH-5014	Custom Mounting Kit for BB-5014. One required per BB-5014.
BBX-2000	Enclosure for FX-2000ND, QMB-5000N and PS-2040. Add suffix 'R' for red enclosure.

Adder Loop Controller Modules

ALCN-396S	Network Dual Loop Loop Controller Module (198 Analog Sensors and 198 Addressable Modules)
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Adder Hardwire Modules

DM-1008A	Eight Class B (Style B) or 4 Class A (Style D) Initiating Circuit Module
SGM-1004A	Four Class A/B (Style Z/Y) Indicating Circuit Module (Rated at 1.7 Amps per circuit)
RM-1008A	Eight Relay Circuit Module c/w eight form C relays (Rated for 28 VDC @ 1 Amp max. per relay)

Adder Auxiliary Modules

UDACT-300A	Digital Alarm Communicator Transmitter/Dialer Module
PR-300	Polarity Reversal and City Tie Module

Programmable Modules

IPS-2424	Programmable Input Switches Module c/w 24 selector switches and 24 bi-coloured LEDs
FDX-008	Fan Damper Control Module c/w 8 programmable switches

Remote Annunciators

RAXN-LCD	Remote Network LCD Annunciator
RAX-1048TZ	Adder Annunciator Chassis c/w 48 Bi-Coloured LEDs

Graphic Annunciator Driver Modules

AGD-048	Adder Graphic Driver Module c/w 48 Supervised Outputs
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Network Controller Modules

FNC-2000	Fire Network Controller Module
FOM-2000-SP	Fiber Optic Network Adder Module
ANC-5000	Audio Network Controller Module
TNC-5000	Telephone Network Controller Module

Audio Amplifiers

QAA-5415-70	70 Volt Quad 15 Watt Amplifier
QAA-5415-25	25 Volt Quad 15 Watt Amplifier
QAA-4CLA	Class 'A' (Style 'Z') Converter Module for QAA-5415-25 and QAA-5415-70 Amplifiers
QAA-5230S-70/25	25 or 70 Volt Dual 30 Watt Amplifier split 'A' 'B' circuits per floor
QAA-4CLAS	Class 'A' (Style 'Z') Converter Module for QAA-5230S-70/25 and QAA-5230S-525-70/25 Amplifiers
QAA-5230-70/25	25 or 70 Volt Dual 30 Watt Amplifier
QAA-5160-70/25	25 or 70 Volt 60 Watt Amplifier

Paging and Telephone Control Modules

QMP-5101N	Master Network Paging Control Module
QAMT-5302	Master Network Telephone Control Module
QAZT-5302	Paging and Telephone Selector Panel

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Description

Mircom's FX-2000 Series Intelligent Analog Fire Alarm Control Panel is designed to provide maximum flexibility of analog system requirements while also providing easy installation and operation at a cost-effective price.

The FX-2000 base panel consists of one intelligent analog loop controller capable of supporting 99 Analog Sensors and 99 Addressable Modules which can be wired in Class A (Style 6 or 7) or Class B (Style 4). The system can be expanded by adding additional Analog Loop Controller Modules. In addition the base panel supports 16 conventional hardwire adder modules such as the DM-1008A Initiating Circuit Module, SGM-1004A Indicating Circuit Module and the RM-1008A Relay Circuit Module. Additional conventional hardwire adder modules can be added with the ALC-H16 Adder Hardwire Loop Controller Module, which allows the system to support an additional 16 conventional adder modules. The base panel also consists of 4 Class A/B (Style Z/Y) Indicating Circuits rated at 1.7 Amps each and either a 6 or 12 Amp Power Supply.

Equipped with a large 4 x 20 Back-lit Alphanumeric LCD display, the FX-2000 utilizes a simple Menu system complete with a directional keypad, common control switches and LEDs, Alarm Queue switches and LEDs, two configurable input switches and 16 configurable zone LEDs.

Features

- Large system capacity
- Modular design
- Each Analog Loop is capable of supporting 99 Analog Sensors and 99 Addressable Modules which can be wired in Class A (Style 6 or 7) or Class B (Style 4)
- Base system supports 16 conventional hardwired modules with the provision to add more using the ALC-H16 Hardwire Loop Controller Module
- 6 or 12 Amp power supply
- Four Class A/B (Style Z/Y) Indicating Circuits rated at 1.7 Amps each
- Configurable for Two Stage operation
- Three level password protection with field programmable definition which enables the installer to determine what functions are accessible for each password level
- Panel Security to protect site configurations
- Manual Control Enable which allows password protection for all front panel function switches
- Correlatable Switch Inputs which allows for multi-functional outputs
- Four Alarm Queues with selector switches and LEDs for Alarm, Supervisory, Monitor and Trouble
- Auxiliary relay contacts for Common Alarm, Common Supervisory and Common Trouble
- RS-232 output for remote system printer or CRT
- Two Event History Logs comprised of a 1000 Alarm History Log for alarm related events and a 2000 Event Log for all events
- Front Panel Auto-Configure and/or Computer laptop Programmable
- Large 4 by 20 character Back-lit LCD Display with user friendly menu
- Common Control switches and/or indicating LEDs for System Reset, Signal Silence, Fire Drill, Acknowledge, General Alarm, Lamp Test, A.C. On, Pre-Alarm and Ground Fault
- Built-in One Man Walk Test operation
- Configurable for Coded Operation
- 16 zone configurable LED annunciator complete with individual slide-in labels for zone definition
- Supports an RS-485 interface to the QX-5000 Voice Evacuation System
- Panel selection for Canadian (ULC) or U.S.A. (UL) requirements for smoke sensors (sensitivity) via computer laptop
- Capability to adjust Intelligent Smoke Detector sensitivity level



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7165-1477:111
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City of
Chicago

Class I (Con) E15095
Class II (Con) E15096
Class I (Add) E15097
Class II (Add) E15098
Highrise

CATALOG NUMBER

5910

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Operation

The FX-2000 is field programmable via the front panel auto configuration or a laptop computer. In addition, it allows for a three level password protection that can be field defined via a laptop computer. This unique feature allows the installer to determine what functions are accessible for each password level.

The system is also equipped with two Event History Logs; one for Alarm and the other for full panel sequence events. The Alarm History Log (1000 events) contains all alarm related functions while the Event Log (2000 events) provides a full sequence log of all operations, as well as alarms and troubles. Both Event History Logs can be used during the One Man Walk Test operation. This allows the event logs to be downloaded to a laptop or printer for a permanent record.

The FX-2000 is a very flexible system which supports both internal and external annunciation modules. The internal annunciation modules consist of the RAX-1048 Programmable Zone LED Annunciator, the IPS-2424 Programmable Input Switches Module, the FDX-008 Fan Damper Module and the AGD-048 Adder Graphic Driver Module.

Input Correlations

All input circuits (addressable or hardwired) can be configured for non-verified alarm, verified alarm, waterflow, latching/non-latching supervisory, monitor, trouble only or remote switch inputs. All of the input configuration types listed above, with the exception of remote switch can be programmed to operate relays, signal and strobe circuits for hardwired or addressable devices. Please refer to the chart below for correlations. The input circuits configured as non-latching will cause the output circuits configured to them to follow the state of the input device. This feature allows for the connection of multiple panels together for signal operation.

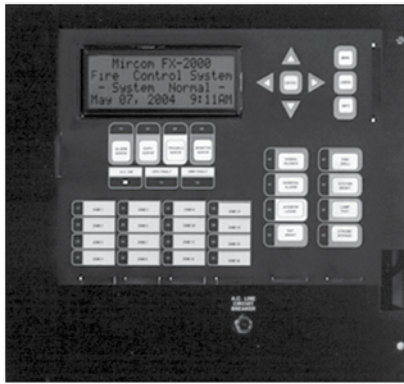
All of these modules mount within the panel and are driven from the main LCD display. The external annunciator modules include the RAM-1032 and RAX-1048 LED Remote Annunciators, the MGD-32 Master Graphic Driver Module, the MGDS-16/16 Master Graphic Driver Module and the RAX-LCD Remote LCD Shared Display. The RAX-LCD Remote LCD Shared Display provides the same features as the main display on the FX-2000. In addition the RAX-LCD also acts as a driver module that allows for the RAX-1048, IPS-2424, FDX-008 and AGD-048 to be connected to it. The RAX-LCD is required as a driver module any time any of the above mentioned external annunciator modules are programmed differently from those on the main panel or are mounted remote from the main panel.

In addition to these adder modules, the FX-2000 also supports the UDACT-300A Digital Communicator Module and the PR-300 Polarity Reversal/City Tie Module. The FX-2000 also supports an RS-485 interface to the QX-5000 Emergency Zoned Audio System.

The Remote Switch input, which must be momentary, allows any input type device (addressable or hardwired) to be configured as a common control functions such as fire drill, system reset, signal silence etc. The remote switches operate in a momentary mode like the control switches on the FX-2000 main panel. For functions such as fire drill, the remote switch functions in a toggle mode, with one press for "on" and one press for "off". The remote switch is supervised for "stuck in on" positions, where the switch input is activated (stuck) for more than 30 seconds. If this occurs, a trouble is generated and clears when the input goes away.

Intelligent or Conventional Input Types	Output			Control Switches
	Relay	Signal	Strobe	
Non-Verified Alarm	Yes	Yes	Yes	No
Verified	Yes	Yes	Yes	No
Waterflow	Yes	Yes	Yes	No
Non-Latching Supervisory	Yes	Yes	Yes	No
Latching Supervisory	Yes	Yes	Yes	No
Monitor	Yes	Yes	Yes	No
Trouble Only	Yes	Yes	Yes	No
Remote Switch Input	No	No	No	Yes

FX-2000 Standard Series



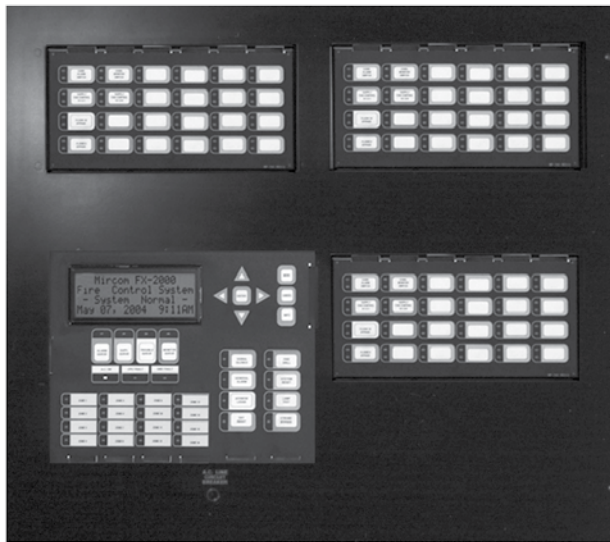
FX-2003-6/FX-2003-12 Compact Main Chassis

The FX-2003-6/FX-2003-12 Compact Main Chassis comes complete with one Analog Loop Controller (99 Analog Sensors and 99 Addressable Modules), 4 Class A/B (Style Z/Y) Indicating Circuits (1.7 Amps each), a 4 line by 20 character back-lit LCD display, 16 Zone LED Annunciator and either a 6 Amp Power Supply which charges 10-24 AH batteries or a 12 Amp Power Supply which charges 17-40 AH batteries. The FX-2003-6/FX-2003-12 supports 16 conventional adder modules and provides space for 3 adder modules. The FX-2003-6/FX-2003-12 mounts in the BBX-1024 enclosure.



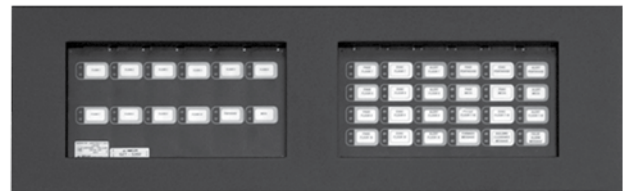
FX-2009-12 Large Size Main Chassis

The FX-2009-12 Large Size Main Chassis comes complete with one Analog Loop Controller (99 Analog Sensors and 99 Addressable Modules), 4 Class A/B (Style Z/Y) Indicating Circuits (1.7 Amps each), a 4 line by 20 character back-lit LCD display, 16 Zone LED Annunciator and a 12 Amp Power Supply which charges 17-40 AH batteries. The FX-2009-12 supports 16 conventional adder modules and provides space for up to 9 adder modules and 2 internal annunciator adder modules. The FX-2009-12 mounts in the BB-5000 Series enclosures.



FX-2017-12A Mid-Size Main Chassis

The FX-2017-12A Mid-Size Main Chassis comes complete with one Analog Loop Controller (99 Analog Sensors and 99 Addressable Modules), 4 Class A/B (Style Z/Y) Indicating Circuits (1.7 Amps each), a 4 line by 20 character back-lit LCD display, 16 Zone LED Annunciator and a 12 Amp Power Supply which charges 17-40 AH batteries. The FX-2017-12A supports 16 conventional adder modules and has space for up to 17 adder modules and 3 internal annunciator adder modules. The FX-2017-12A mounts in the BBX-1072A enclosure.



ECX-0012 Expander Chassis

The ECX-0012 Expander Chassis for the FX-2009-12/FX-2009S-12 supports up to 12 adder modules and has space for 2 internal annunciator modules. The ECX-0012 mounts in the BB-5000 series enclosures.

FX-2000 Standard Series System Maximums

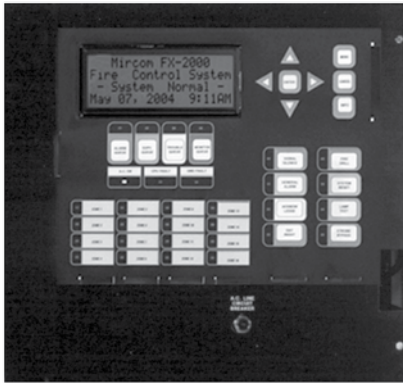
- **500** Input Circuits
- **150** Output Circuits
- **5** Intelligent Addressable Loops
- **4** Remote LCD Annunciators
- **4** Main LED Annunciators
- **100** Manual Control Switches

NOTE: Refer to page 4 for Enhanced Series Maximums

FX-2000 Enhanced Series

Mircom's FX-2000 Enhanced Series feature a powerful CPU which increases the processing of inputs/outputs to provide faster response times and allow for larger

system capacities. The Main Chassis are available in the same configurations as the standard FX-2000 Series.



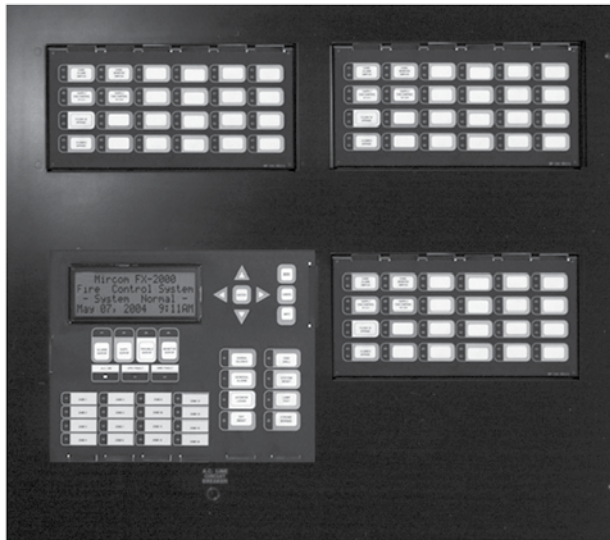
FX-2003S-12 Enhanced Series Compact Main Chassis

The FX-2003S-12 Enhanced Compact Main Chassis comes complete with 4 Class A/B (Style Z/Y) Indicating Circuits (1.7 Amps each), a 4 line by 20 character back-lit LCD display, 16 Zone LED Annunciator and a 12 Amp Power Supply which charges 17-40 AH batteries. The FX-2003S-12 provides space for 3 ALC-396S Dual Loop Controller Modules. The FX-2003S-12 mounts in the BBX-1024 enclosure.



FX-2009S-12 Enhanced Series Large Size Main Chassis

The FX-2009S-12 Enhanced Large Size Main Chassis comes complete with 4 Class A/B (Style Z/Y) Indicating Circuits (1.7 Amps each), a 4 line by 20 character back-lit LCD display, 16 Zone LED Annunciator and a 12 Amp Power Supply which charges 17-40 AH batteries. The FX-2009S-12 electrically supports 16 conventional adder modules and provides space for up to 9 adder modules and 2 internal annunciator adder modules. The FA-2009S-12 mounts in the BB-5000 Series enclosures.



FX-2017S-12A Enhanced Series Mid-Size Main Chassis

The FX-2017S-12A Mid-Size Main Chassis comes complete with 4 Class A/B (Style Z/Y) Indicating Circuits (1.7 Amps each), a 4 line by 20 character back-lit LCD display, 16 Zone LED Annunciator and a 12 Amp Power Supply which charges 17-40 AH batteries. The FX-2017S-12A provides space for up to 17 adder modules/Dual Loop Controllers and 3 internal annunciator adder modules. The FX-2017S-12A mounts in the BBX-1072A enclosure.



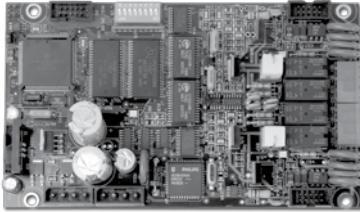
ECX-0012 Expander Chassis

The ECX-0012 Expander Chassis for the FX-2009-12/ FX-2009S-12 supports up to 12 adder modules and has space for 2 internal annunciator modules. The ECX-0012 mounts in the BB-5000 series enclosures.

FX-2000 Enhanced Series System Maximums

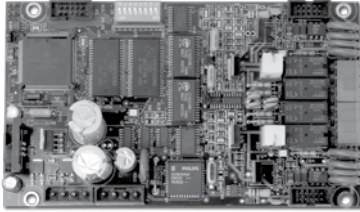
- 1500 Input Circuits
- 300 Output Circuits
- 30 Intelligent Addressable Loops
- 24 Remote LCD Annunciators
- 4 Main LED Annunciators
- 300 Manual Control Switches

Adder Loop Controller Modules



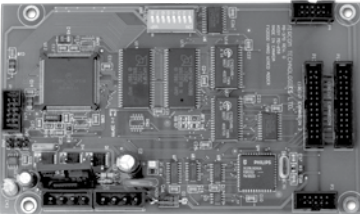
ALC-198S Single Analog Loop Controller Module

The ALC-198S Single Analog Loop Controller Module provides an additional analog loop to the FX-2000 consisting of 99 Analog Sensors and 99 Addressable Modules. The ALC-198S occupies one module slot in the FX-2000 main or expander chassis.



ALC-396S Dual Analog Loop Controller Module

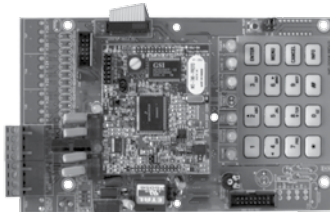
The ALC-396S Dual Analog Loop Controller Module provides two additional analog loops to the FX-2000 consisting of 99 Analog Sensors and 99 Addressable Modules per loop. The ALC-396S occupies one module slot in the FX-2000 main or expander chassis.



ALC-H16 Hardwire Loop Controller Module

The ALC-H16 Hardwire Loop Controller Module allows the FX-2000 to support an additional sixteen (16) conventional hardwire adder modules. The hardwire modules consist of the DM-1008 Eight Initiating Circuit Module, SGM-1004 Four Indicating Circuit Module and the RM-1008 Eight Relay Circuit Module. The ALC-H16 occupies one module slot in the FX-2000 main or expander chassis.

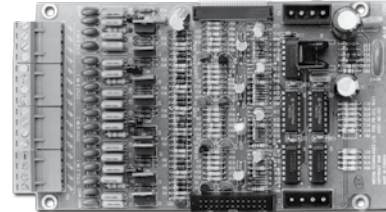
Adder Auxiliary Modules



UDACT-300A Digital Alarm Communicator Module

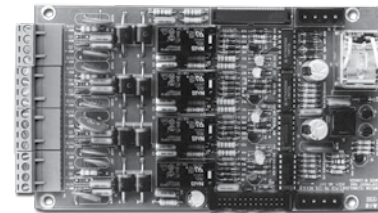
The UDACT-300A Digital Alarm Communicator Module allows the FX-2000 to transmit addressable point information to a central station. The UDACT-300A can be configured locally via the on-board keypad and the CFG-300 Configuration Tool or with a UIMA programming tool and a computer with an available serial or USB port. The UDACT-300A occupies one module slot in the FX-2000 main or expander chassis.

Adder Hardware Modules



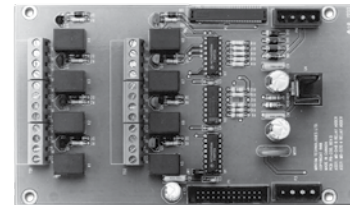
DM-1008A Eight Initiating Circuit Module

The DM-1008A provides 8 Class B (Style B) or 4 Class A (Style D) Initiating Circuits configurable for Alarm, Supervisory or Trouble zones. The DM-1008A occupies one module slot in the FX-2000 main or expander chassis.



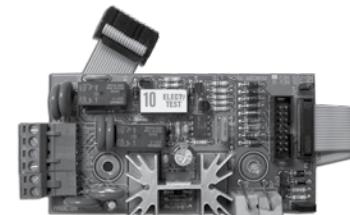
SGM-1004A Four Indicating Circuit Module

The SGM-1004A provides 4 Class A/B (Style Z/Y) Indicating Circuits configurable as Silenceable or Non-Silenceable. Each Indicating Circuits is rated at 1.7 Amps. Each of the indicating circuits have individual signal silence inputs which are jumper selectable. The SGM-1004A occupies one module slot in the FX-2000 main or expander chassis.



RM-1008A Eight Relay Circuit Module

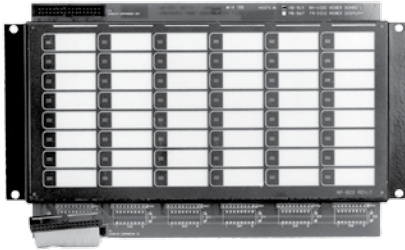
The RM-1008A provides the FX-2000 with 8 individual configurable relays per module. Each relay provides one Form C contact rated at 28 VDC @1 Amp (resistive load). The RM-1008A occupies one module slot in the FX-2000 main or expander chassis.



PR-300 Polarity Reversal/City Tie Module

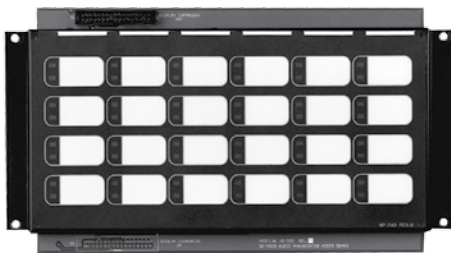
The PR-300 Polarity Reversal/City Tie Module provides the system with a supervised City Tie (24 VDC/200 mA max.) and Polarity Reversal connection (24 VDC (open circuit), 8 mA max. (shorted)). The PR-300 mounts in the FX-2000 main chassis.

Programmable Modules



RAX-1048 Programmable Zone LED Annunciator Module

The RAX-1048 Programmable Zone LED Annunciator Module provides 48 programmable bi-coloured LEDs. The RAX-1048 connects to the main panel or the RAX-LCD Shared Display when mounted remotely. The RAX-1048 occupies one display position in the BB-1000 or BB-5000 enclosures.



IPS-2424 Programmable Input Switches Module

The IPS-2424 Programmable Input Switches Module provides 24 programmable switches that can be configured for ancillary functions such as zone bypass or added common control functions. The switches operate in a toggle operation with one press for “on” and one press for “off”. The IPS-2424 connects to main panel or the RAX-LCD when mounted remotely. The IPS-2424 occupies one display position in the BB-1000 or BB-5000 enclosures.

FDX-024 Fan Damper Module

The FDX-024 Fan Damper Module provides 24 individually programmable switches which can be used for fan or damper control. Each circuit has 24 Bi-Coloured LEDs (Green/Amber) and 24 Amber Select LEDs. The FDX-024 connects to main panel or the RAX-LCD when mounted remotely. The FDX-024 occupies one display position in the BB-1000 or BB-5000 enclosures.



FDX-008 Fan Damper Module

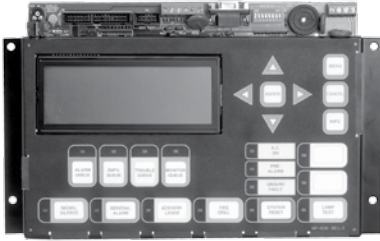
The FDX-008 Fan Damper Module provides individually programmed circuits which can be used for fan or damper control. Each circuit has a slide-in label, a three position selector switch, green “run or open” LED and an amber “off or closed” LED. The three-position selector switch has a centre “auto” position, a left “off or close” position and a right “on or open” position. The FDX-008 connects to the main panel or the RAX-LCD when mounted remotely. It uses MIX-M500CH for control of fans or dampers and two MIX-M501A for status. The FDX-008 occupies one display position in the BB-1000 or BB-5000 enclosures.

Electrical Ratings

Current Consumption

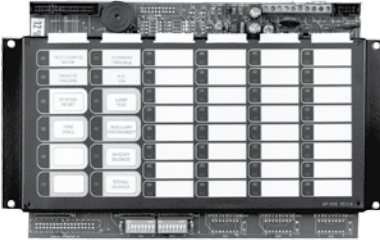
Model	Standby	Alarm
FX-2003-6/FX-2003-12	230 mA	380 mA
FX-2017-12A	230 mA	380 mA
FX-2009-12	230 mA	380 mA
ALC-198S/ALC-396S	35 mA	50 mA
ALC-H16	35 mA	50 mA
DM-1008A	80 mA	100 mA
SGM-1004A	35 mA	150 mA
RM-1008A	25 mA	150 mA
PR-300	50 mA	300 mA
UDACT-300A	40 mA	60 mA
RAX-LCD	100 mA	150 mA
IPS-2424	10 mA	144 mA
FDX-008	10 mA	100 mA
MGD-32	35 mA	1.6 Amps
AGD-048	25 mA	2.4 Amps
RAM-1032	50 mA	150 mA
RAX-1048	15 mA	100 mA

Remote Annunciators



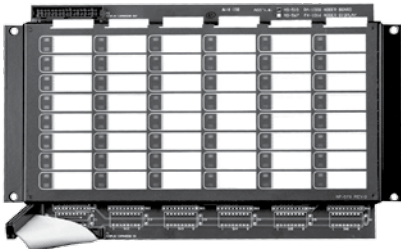
RAX-LCD Remote Shared Display

The RAX-LCD Remote Shared Display is a remote annunciator that provides the same functions as the main display on the fire alarm control panel, less the 16 zone LEDs. In addition to operating as a remote annunciator, it can also be used as a driver module for standard LED annunciation or reduced zone annunciation (different from the main panel annunciation), graphic drivers programmed different from the main annunciators, programmable switch modules with a unique configuration and fan damper control also with a unique configuration. Each time a different type of annunciation configuration is needed an additional RAX-LCD is required. The RAX-LCD occupies one display position in the BB-1000 or BB-5000 enclosures.



RAM-1032 Main Remote LED Annunciator

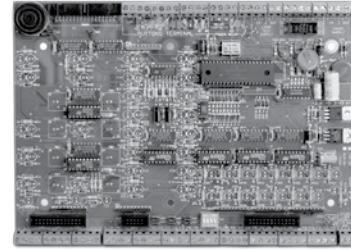
The RAM-1032 Main Remote LED Annunciator provides common annunciator functions and 32 points of LED annunciation. Each display point can be identified by the slide-in label that slides in beside the LED. The RAM-1032 is equipped with sealed membrane-like buttons for Common Control functions. The RAM-1032 allows for the control switches to be disabled on a per function basis for areas that do not require certain common control functions to be remotely located from the fire alarm control panel. The RAM-1032 can be programmed differently than the main panel annunciator or a remote RAX-LCD. All RAM-1032 remote annunciators on the system must be programmed the same. The RAM-1032 occupies one display position in the BB-1000 or BB-5000 enclosures.



RAX-1048 Adder Remote LED Annunciator

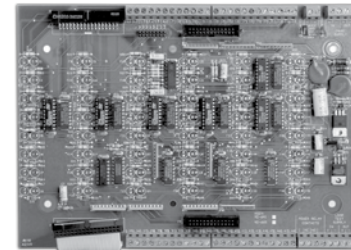
The RAX-1048 Adder Remote LED Annunciator provides an additional 48 points of LED annunciation. The RAX-1048 is an expandable module that connects to the RAM-1032. The RAX-1048 occupies one display position in the BB-1000 or BB-5000 enclosures.

Graphic Annunciator Driver Modules



MGD-32 Master Graphic Driver Module

The MGD-32 Master Graphic Driver Module provides common control inputs for the common control switches such as System Reset, Signal Silence, Auxiliary Disconnect, Fire Drill, Lamp Test, Acknowledge and General Alarm. Any or all of these switch inputs can be used. There are supervised outputs for all of the support LEDs and the common control switches. The MGD-32 can also drive up to 32 supervised outputs. These output points are capable of driving LEDs or incandescent lamps. Mounts in a graphic annunciator wallbox or in the BB-5000 enclosures. External power supply required for incandescent lamps and lamp test.



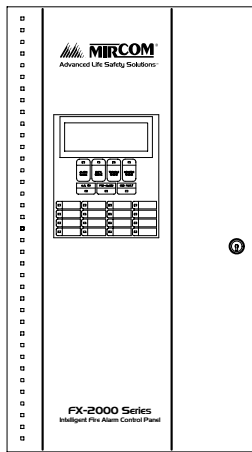
AGD-048 Adder Graphic Driver Module

The AGD-048 Adder Graphic Driver Module can be used with either the MGD-32 or MGDS-16/16 Master Graphic Driver modules, or if located remotely it must be connected and mounted with the RAX-LCD Shared Display. The AGD-048 will support an additional 48 supervised outputs. As with the master modules, the AGD-048 will support both LEDs and incandescent lamps. Mounts in a graphic annunciator wallbox or in the BB-5000 enclosures.

NOTE:

The combined total of RAM-1032 and MGD-32 per system is eight. All RA-1000 Series annunciators or Graphic driver modules must have the zoned LED or graphic LED correlated to the same combination of addressable devices or hardwired zones. However, the zoned LED annunciator on the FX-2000 main panel can be programmed differently from the annunciators mounted remotely.

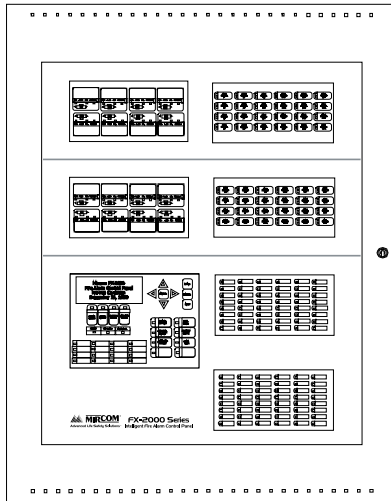
Enclosures



BBX-1024

The BBX-1024 enclosure is capable of handling one FX-2003-6 or FX-2003-12 Compact Main Chassis and up to 17 AH Batteries. The FA-UNIV-TRB Semi-Flush Trim Ring is required for semi-flush mounting. The cabinet features the universal CAT-30 lock and a removable door for easy installation and servicing. The cabinet is available in a beige or red exterior (BBX-1024R).

Dimensions: 26"H x 14 1/2"W x 4 1/2"D



BB-5008

The BB-5008 is a lobby control centre enclosure which is capable of handling one FX-2009-12 Large Main Chassis which supports 2 internal annunciator modules such as the IPS-2424, FDX-008, RAX-1048, etc. In addition the BB-5008 allows for 4 footprints for mounting Audio Lobby Control modules, Fire Fighter's Lobby Control modules and FX-2000 Internal Annunciator modules. The cabinet hold up to 24 AH batteries. Door and Chassis hardware are ordered separately.

Dimensions: 36"H x 30"W x 7"D

Other Enclosures

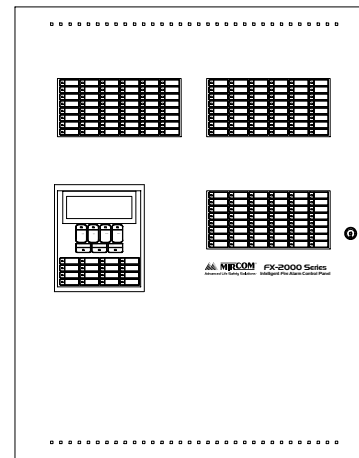
BB-1001: 9"H x 12.75"W x 1.2"D

BB-1002: 18"H x 12.75"W x 1.2"D

BB-1003: 26.4"H x 12.75"W x 1.2"D

BB-1008: 33"H x 22.5"W x 1.25"D

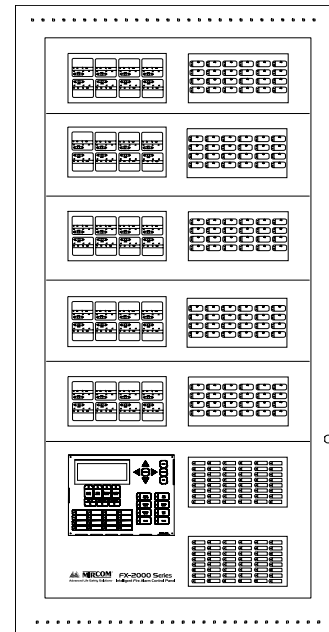
BB-1012: 45"H x 22.5"W x 1.25"D



BBX-1072A

The BBX-1072A enclosure is capable of handling one FX-2017-12A Mid-Size Main Chassis, as well as up to 40 AH Batteries. The cabinet features the universal CAT-30 lock and a removable door for easy installation and servicing. The cabinet is available in a beige or red exterior (BBX-1072AR).

Dimensions: 32 1/2"H x 25"W x 6 1/2"D

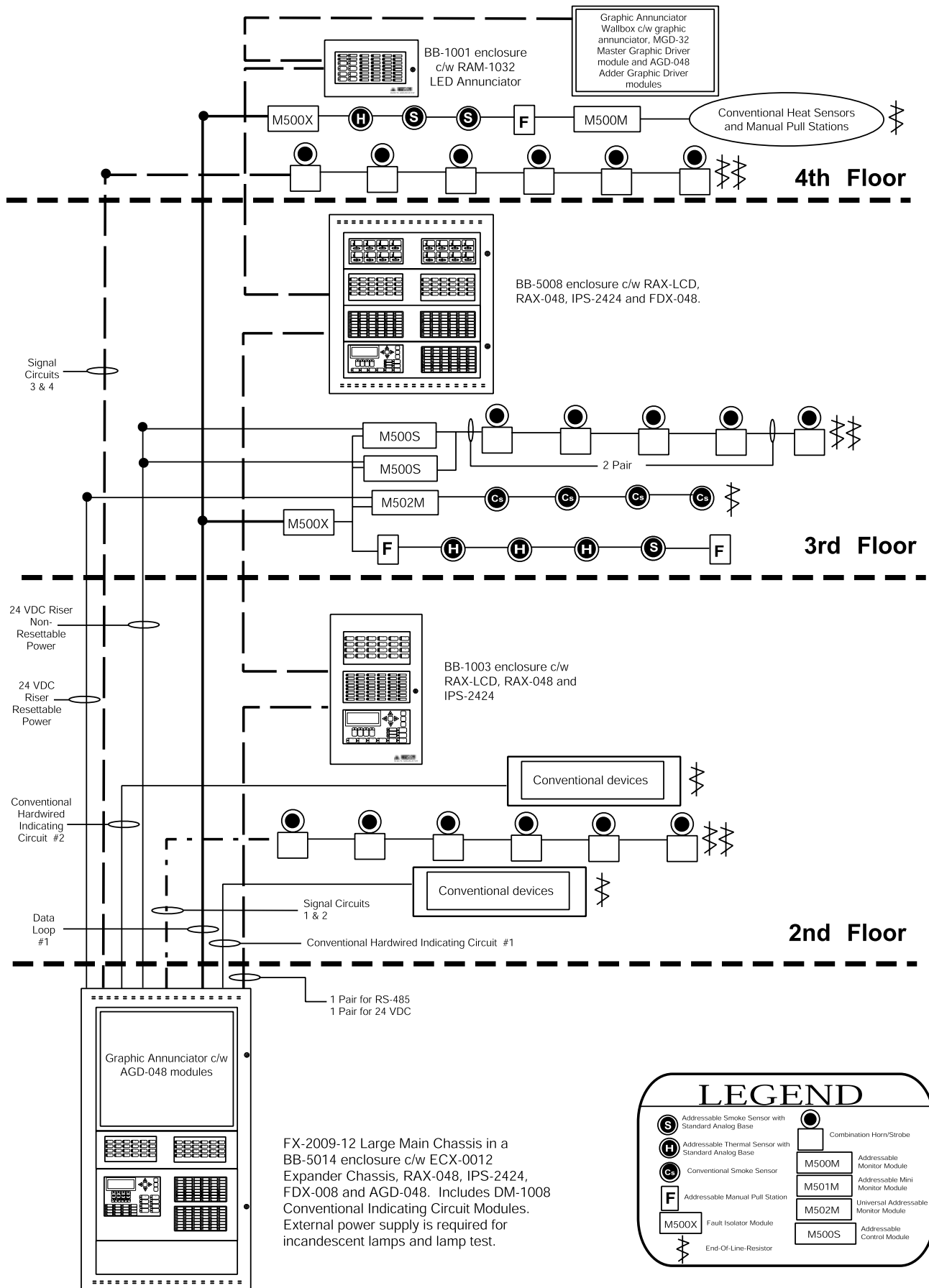


BB-5014

The BB-5014 is a lobby control centre enclosure which is capable of handling one FX-2009-12 Large Main Chassis which supports 2 internal annunciator modules such as the IPS-2424, FDX-008, RAX-1048, etc. In addition the BB-5014 allows for 10 footprints for mounting Audio Lobby Control modules, Fire Fighter's Lobby Control modules and FX-2000 Internal Annunciator modules. The BB-5014 can also support a graphic annunciator in place of these modules. The cabinet holds up to 24 AH batteries. Door and Chassis hardware are ordered separately.

Dimensions: 60"H x 30"W x 7"D

Typical FX-2000 Panel Wiring Class B (Style 4)



Ordering Information

Model Description

FX-2000 Standard Series

FX-2003-6	Compact Main Chassis c/w one Intelligent Analog Loop Controller (99 Analog Sensors and 99 Addressable Modules), 4 x 20 Back-lit LCD display, 4 Class A/B (Style Z/Y) Indicating Circuits (1.7 Amps each), 16 LED annunciation points and a 6 Amp power supply. Supports up to 16 Conventional Adder Modules. Provides space for 3 Adder Modules. Mounts in the BBX-1024 enclosure.
FX-2003-12	Same as above with 12 Amp Power Supply.
FX-2017-12A	Mid-Size Main Chassis c/w one Intelligent Analog Loop Controller (99 Analog Sensors and 99 Addressable Modules), 4 x 20 Back-lit LCD display, 4 Class A/B (Style Z/Y) Indicating Circuits (1.7 Amps each), 16 Red LED annunciation points and a 12 Amp power supply. Supports up to 16 Conventional Adder Modules. Provides space for 17 Adder Modules and 3 Internal Annunciation modules. Mounts in the BBX-1072A enclosure.
FX-2009-12	Large Main Chassis c/w one Intelligent Analog Loop Controller (99 Analog Sensors and 99 Addressable Modules), 4 x 20 Back-lit LCD display, 4 Class A/B (Style Z/Y) Indicating Circuits (1.7 Amps each), 16 Red LED annunciation points and a 12 Amp power supply. Supports up to 16 Conventional Adder Modules. Provides space for 9 Adder Modules and 2 Internal Annunciation modules. Mounts in the BB-5000 series enclosures.
ECX-0012	Expander Chassis for the FX-2009-12 c/w space to add up to 12 adder modules and 2 Internal Annunciation modules. Mounts in the BB-5000 series enclosures.

FX-2000 Enhanced Series

FX-2003S-6	Compact Main Chassis c/w 4 x 20 Back-lit LCD display, 4 Class A/B (Style Z/Y) Indicating Circuits (1.7 Amps each), 16 LED annunciation points and a 6 Amp power supply. Provides space for 3 ALC-396S Dual Loop Controller Modules. Mounts in the BBX-1024 enclosure.
FX-2003S-12	Same as above with 12 Amp Power Supply.
FX-2017S-12A	Mid-Size Main Chassis c/w 4 x 20 Back-lit LCD display, 4 Class A/B (Style Z/Y) Indicating Circuits (1.7 Amps each), 16 LED annunciation points and a 12 Amp power supply. Provides space for 17 Adder Modules/Dual Loop Controller Modules and 3 Internal Annunciation modules. Mounts in the BBX-1072A enclosure.
FX-2009S-12	Large Main Chassis c/w 4 x 20 Back-lit LCD display, 4 Class A/B (Style Z/Y) Indicating Circuits (1.7 Amps each), 16 LED annunciation points and a 12 Amp power supply. Provides space for 9 Adder Modules/Dual Loop Controller Modules and 2 Internal Annunciation modules. Mounts in the BB-5000 series enclosures.
ECX-0012	Expander Chassis for the FX-2009-12 c/w space to add up to 12 adder modules and 2 Internal Annunciation modules. Mounts in the BB-5000 series enclosures.

Adder Loop Controller Modules

ALC-198S	Single Loop Intelligent Analog Loop Controller Module (99 Analog Sensors and 99 Addressable Modules)
ALC-396S	Dual Loop Intelligent Analog Loop Controller Module (198 Analog Sensors and 198 Addressable Modules)
ALC-H16	Hardwire Loop Controller Module. Supports 16 Conventional Hardwired Modules.

Adder Hardware Modules

DM-1008A	Eight Class B (Style B) or 4 Class A (Style D) Initiating Circuit Module
SGM-1004A	Four Class A/B (Style Z/Y) Indicating Circuit Module (Rated at 1.7 Amps per circuit)
RM-1008A	Eight Relay Circuit Module c/w eight form C relays (Rated for 28 VDC @ 1 Amp max. per relay)

Adder Auxiliary Modules

UDACT-300A	Digital Alarm Communicator Transmitter/Dialer Module
PR-300	Polarity Reversal and City Tie Module

Programmable Modules

RAX-1048	Programmable Zone LED Annunciator Module c/w 48 bi-coloured LEDs
IPS-2424	Programmable Input Switches Module c/w 24 selector switches and 24 bi-coloured LEDs
FDX-008	Fan Damper Control Module c/w 8 programmable switches
FDX-024	Fan Damper Control Module c/w 24 programmable switches

Remote Annunciators

RAM-1032	Main Annunciator Chassis c/w Common Control Features, Indicators and 32 Bi-Coloured LEDs
RAX-1048	Adder Annunciator Chassis c/w 48 Bi-Coloured LEDs
RTI-1	Remote Trouble Indicator

Remote Shared Display Annunciators

RAX-LCD	Remote Shared Display LCD Annunciator c/w Display Queues and Common Controls.
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Graphic Annunciator Driver Modules

MGD-32	Master Graphic Driver Module c/w Fire Alarm Common Control Switch Inputs and 32 Supervised Outputs
AGD-048	Adder Graphic Driver Module c/w 48 Supervised Outputs

Enclosures

BBX-1024	Black backbox enclosure for FX-2000 c/w removable door and CAT-30 lock and key. Houses one FX-2003-6, FX-2003-12, FX-2003S-6 or FX-2003S-12 Compact Main Chassis and up to 17 AH batteries. White door. (Add suffix "R" for red door)
BBX-1072A	Black backbox enclosure for FX-2000 c/w removable door and CAT-30 lock and key. Houses one FX-2017-12A or FX-2017S-12A Mid-Size Main Chassis, and up to 40 AH batteries. White door. (Add suffix "R" for red door)
BB-5008	Lobby Control Centre Wallbox Enclosure. Supports 8 Module Footprints.
DOX-5008M	White Metal Door for BB-5008
CCH-5008	Custom Mounting Kit for BB-5008. One required per BB-5008.
BB-5014	Lobby Control Centre Wallbox Enclosure. Supports 14 Module Footprints.
DOX-5014M	White Metal Door for BB-5014
CCH-5014	Custom Mounting Kit for BB-5014. One required per BB-5014.
FA-UNIV-TRB	Universal Black Semi-Flush Trim Ring for BBX-1024 Backbox

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